DEREGULATION OF FOREIGN EXCHANGE MARKET AND THE EFFECT ON INDUSTRIAL PRODUCE IN NIGERIA

BY

IKPEFAN, OCHEI AILEMEN B.Sc (Hons) MBA, ACIB, ACA, FNIM

(LECTURER, BANKING & FINANCE)

COLLEGE OF BUSINESS AND SOCIAL SCIENCES

COVENANT UNIVERSITY, OTA

E-mail: ochei_ikpefan@yahoo.co.uk

Tel No: 08053013418

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ABSTRACT

The problem of the effect of high regulation in the foreign exchange market which in advertently have a determining factor on the performance of business organizations most especially industries in Nigeria. This paper deals with the effect of exchange rate deregulation on industrial produce/manufacturing output in the Nigerian economy. This study also uses the econometric approach in estimating the effect and to be specific it uses the co-integration and error correction mechanism. The paper started by laying a background for the work. Section 1 dwells on the statement of the problem, objectives, statement of hypotheses, significance of the study, research questions and scope of the study. Section 2 is mainly on the review of similar literatures relating to foreign exchange policies per time, the trend, management and other matters relating to foreign exchange.Setion 3 focuses on the research methodology while Section 4 is the presentation, analysis and interpretation of the regression result. Section 5 is the final and the concluding part of the subject matter which simply try to give conclusion and recommendation on the entire work, as well as further readings for other researchers. The paper concluded that the major determinant of manufacturing output in the Nigerian economy is labour, capital and exchange rates.

1.0 INTRODUCTION

Background of the Paper

The impact of regulating a system efficiently and effectively always leads to outstanding success of that system. As it is popularly said that only those that comply with regulations become regulators. Nigeria in the past years has been involved in different regulation strategies. And failure of a policy usually leads to the implementation of a new regulation which usually entails adjustment of previous regulations. For example the economic stabilization measures involving stringent exchange and trade controls, introduced in April, 1982, proved rather ineffective. More stringent measures introduced in 1983 and 1984 and retained in 1985 accomplished very little. When there exists a regulatory failure, this could be due to excessive regulation and or ineffective implementation of regulatory measures. (Tola, 2006)

The evolution of the foreign exchange markets in Nigeria up to its present state was influenced by a number of factors which include the changing pattern of international trade, institutional changes and structural shift in production. Before the establishment of the Central Bank of Nigeria (CBN) and the enactment of the Exchange Control Act of 1962, foreign exchange was earned by the private sector and held in balance abroad by commercial banks which acted as the agents for local exporters. During this period, agricultural exports contributed the bulk of foreign exchange receipts. The fact that the Nigerian pound was tied to British pounds, with easy convertibility, delayed the development of an active foreign exchange market. However, with the establishment of the Central Bank of Nigeria and subsequent centralization of foreign exchange authority in the bank, the need to develop a foreign exchange market distinct from those in the major international centres became paramount.

The displacement of Agricultural exports by crude oil exporters in the early 1970s as the Nation's major foreign exchange earner, owing to the sharp rise in petroleum prices, enhanced official foreign exchange receipts. Thus, most economic agents had to patronise the CBN for foreign exchange allocation to pay international transactions. The foreign exchange market experienced a boom during the period, and to avoid shortage, the management of the foreign exchange resources came under sharper focus. During the period, 1962 to 1986, otherwise known as the Pre-SFEM period, the Central Bank of Nigeria (CBN) was the sole custodian of foreign exchange (Forex). All receipts of forex meant for this country was channelled through the CBN, and remittances of foreign exchanges were made by the CBN in respect of Authorized Dealers who carried out the instruction of their customers in respect of foreign exchange transactions. The Exchange Control Act 1962 vested in the monetary authorities the power to approve all applications for foreign exchange in respect of all import transactions and invisible trade transactions.

The policies pursued led to structural changes which left the national economy with substantial price distortions and even more vulnerable to external shocks. First, the economy became heavily dependent on crude oil. By the beginning of 1980s, the oil sector had come to account for 22% of the GDP, 81% of the government revenue and 96% of export earnings. Second, the competitiveness of the agricultural sector- the major source of GDP and of export earnings before the oil boom was eroded by the effect of an appreciating Naira, inadequate pricing policy, and rural urban migration. And Nigerians therefore progressively became major food importer.

This development had a negative effect on manufacturing output. Manufacturing output helped immensely by the reformed foreign exchange allocation system moved up quite rapidly from the low levels before 1986. The range of import duties was recorded to be between the range of 10 and 60 per cent, which can be described as irrational tariff structure designed to logically put local industries out of business or cause manufacturers to be unproductive.

This paper now tends to examine the effect of exchange rate deregulation on industrial produce in the past years. This paper becomes essential in the light of the need to examine the impact of exchange rate policy reversal in the real sector of the economy whether it attracts foreign investment, more job opportunities, and professionalism in delivery of financial services, providing money for economic growth and development and if it thereby create inter-boundaries ties between countries and inter-governmental relationship.
The paper started by laying a background for the work. Section 1 dwells on the statement of the problem, objectives, statement of hypotheses, significance of the study, research questions and scope of the study.

Section 2 is mainly on the review of similar literatures relating to foreign exchange policies per time, the trend, management and other matters relating to foreign exchange.Setion 3 focuses on the research methodology while Section 4 is the presentation, analysis and interpretation of the regression result. Section 5 is the final and the concluding part of the subject matter which simply try to give conclusion and recommendation on the entire work, as well as further readings for other researchers.

Statement of the Problem:

The fundamental problem that will be dealt with in this paper is the problem of the effect of high regulation in the foreign exchange market which in advertently have a determining factor on the performance of business organizations most especially industries in Nigeria. And the heavy tariff on importation of industrial material, which ranges between 10 to 60 per cent, also adds to the experience of underdevelopment in the industrial sector. Aside this also is the snail speed situation of the development of the manufacturing sector of the Nation Nigeria.
Other problems of the economy include excessive dependence on imports for consumption and capital goods, unprecedented fall in capacity utilization rate in industry and neglect of the agricultural sector. These have resulted in fallen incomes and devalued standards of living amongst Nigerians. (Okunola, 2006)

Since the adoption of exchange rate deregulation policy in Nigeria, the exchange rate, which is the price of domestic currency in terms of foreign currency, has become so volatile. This fluctuation was partially noticed between 1962 and 1973 when the dollar was devalued by 10% and in order to maintain the existing Naira/dollar rate, the Naira too was also devalued by the same percentage. Before then, the stability of the exchange rate was guaranteed and changes in money supply did not constitute a major macro economic problem. This was so because the rate was fixed but was being varied by the Central Bank as deemed fit as indicated in control Act enacted on Central Bank in 1962. The main objectives of the Act were the centralization of foreign exchange, rational allocation of foreign exchange, and achievement of internal and external balances.

In 1986 when the Naira was floated on the 2nd tier foreign exchange market (SFEM) during the Structural Adjustment Programme (SAP), the trend in exchange rate rose sharply. Further fluctuation of the exchange rate continued in 1993 until when the Naira eventually stabilized at 21 Naira per US dollar. The exchange rate under the pro-rata basis was officially pegged at **N**21.996 to cushion the effects of high demand and the instability in the market. The major element of the deregulation was the re-introduction of the Autonomous Market for Foreign Exchange (AFEM) for transactions in privately sourced foreign exchange at market-determined rates. In the AFEM, the banks were made the principal dealers. A subsidized and pegged official exchange rate of $1.00 = **N**22.00 was reserved for public sector transactions of non-commercialized agencies, including debt service payment and National Priority Projects. In 2007, the official exchange rate of Naira to the Dollar as at April is $1 = N127.00

From the above analysis, it is clear that exchange rate management in Nigeria has gone through so many phases, all in an attempt to ensure stability for the naira in the foreign exchange market. The question here is that in spite of the success of other countries in the implementation of these deregulation policies, the Nigerian economy hasn't experienced such success, why is that?

Scope of the Paper

The Paper is restricted to the Nigerian economy. However, for the sake of emphasis, we shall be looking to other economies as a point of reference. The data to be used are annual published time series data on the selected variables from CBN statistical bulletin. The period covered will be from 1970 to 2004.This is due to the available information at hand and more importantly during this period we have several regulations as well as deregulation era.

Objectives of the Study:

Nigeria has so much depended on crude oil for too long and we have totally forsaken the other gifts of Nature endowed on us. Growth rate of the industries really fall low to the extent that we almost do not produce/refine our crude oil for usage in divers products.

Government also has negatively helped by imposing heavy regulations on the foreign exchange indirectly. This will in no way encourage the local industries and prepare them for the international setting. This paper now seeks to examine the main challenges of regulating the foreign exchange market which in turn could have effect on the local industries in the Nation either positively or negatively.

The objectives of this paper include the following:

- To find out the problems faced by business organization as a result of the imposed regulation in the business world.
- To recommend or proffer solutions for necessary foreign exchange regulations that will enable organizations achieving the organizational set goals and objectives.

Significance of the study

This study therefore helps the reader, other researchers and beneficiaries of this study, that is, Financial and monetary authorities, manufacturers and even the academia to focus on the aspect of the exchange regulation as it greatly determine the performance in terms of output of industries.

Research Questions

(i) What are the regulations in the foreign exchange market?
(ii) How does this heavy regulation in the foreign exchange market affect the availability of industrial produce?
(iii) What are the variable (s) involved in industrial produce?
(iv) Will the deregulation of foreign exchange help to boost the economy and the production sector most especially?
(v) What are the outcomes of influence of the regulation on the economy at large?

Research Hypothesis

The hypothesis that this study tries to test in order for us to justify and validate our models are as follows:

1. H_1: The policies on deregulation of exchange rate have had a positive effect on the industrial products of the Nigerian economy.
   Ho: The policies on deregulation of exchange rate have not had a positive effect on the industrial products of the Nigerian economy.
2. H_1: The structural adjustment program has proved favorable to the Nigerian economy.
   Ho: The structural adjustment program has not proved favorable to the Nigerian economy.
3. H_1: The economy was better after the era of heavy regulation.
   Ho: The economy was not better after the era of heavy regulation.

Research Methodology

The regression analysis will be suitable for the analytical presentation of the facts and findings of this paper. The reason for this method is because the study involves mostly secondary time series data's that will require running the information therein.

Data source:

The data that are going to be used for the purpose of this research work will be secondary data and shall be sourced from the publication of the Central Bank of Nigeria, IMF report and government Ministries as well.

2.0 LITERATURE REVIEW

INTRODUCTION

The review will focus on the theoretical foundation of exchange rate policy, divergent views on exchange rate, concept of deregulation on Nigeria, foreign currency policy in Nigeria, types of exchange rate policy, problems with the Nigerian exchange rate system, adjustments and industrial performance in Nigeria and constraints to manufacturing production in Nigeria.

Foreign exchange refers to the revenue earned by a country in convertible currencies from exports of goods and services. It should be noted that the Nigeria's principal source of foreign exchange earnings is from the export of crude oil. Other sources of foreign exchange flows include non-oil exports, capital importation, foreign investment flows, service income, other invisible items such as external borrowings and foreign aids. The totality of the foreign

exchange earned and available at any given time for the settlement of Nigeria's external obligations is referred to as the foreign exchange reserve.
It has been argued that the recent economic crises in Nigeria have been attributed to the misappropriation of money from the oil boom in the 70s. This view can be traced to a lot of writers like Olukole (2002), Ajayi (1988), Osagie (1985), Adeyinkinju (1980) and many others.

In Nigeria, Ajayi (1988) and Osagie (1985), while using the structuralist approach in their study of external trade flow, opposed the adoption of a more flexible exchange rate policy in Nigeria. Their arguments were based on the structuralist thesis that exchange rate devaluation would create inflation and have no significant effects on the external trade balance in the less developed countries. This is because of low price elasticity generally associated with the excess import and export demand functions. (Taylor and Krugman, 1977). The findings of Ajayi (1988) and Osagie (1985) support an earlier study by Ojo (1978), who suggested that exchange rate changes need not play any significant role in the explanation of Nigerian import-export balance.

After the oil boom in the 1970s, Nigeria's official foreign exchange reserves also experience an unprecedented growth when its figure stood at about US$10 billion. Effort was made by the authorities during the period to use the huge oil revenue in massive reconstruction of the economy and some identifiable progress was made in the areas of social and economic infrastructure. At this period, Nigeria solely relied on the exportation of oil and importation of goods and services to and from other Nations. Suddenly was the collapse of world oil market in the mid-1981. Moreover, this was the beginning of economic crises in Nigeria. The work of Olukole, (1991) in the CBN economic bulletin revealed that the foreign exchange reserve that used to be around US$10 billion fell at an alarming level of about US$3.81 billion at the end of 1981.
Since 1982, the Nigerian economy experienced various decline in external reserves when compared to end of December, 1981 figure, which itself, recorded a staggering shortfall. For example, the external reserve as at December, 1982 amounted to US$1.5 billion (Olukole, 1991). The exchange rate as at that time was N0.6702 to 1US Dollar. The external reserve as at December, 1983 totaled US$1.2 billion and the exchange rate was at N0.7486 to 1 US Dollar. Also the external reserve figure as at December, 1984 was US$1.4 billion while the exchange rate as at that time was N0.8083 to 1 US Dollar. Things were not better still for the economy when it recorded a reserve of US$1.6 billion as at the end of 1985.
However, as at December, 1985 the exchange rate was N1.0 to 1US Dollar. It would thus be seen that the exchange rate during the period 1982-1985 did not actually reflect the precipitous downturn in the economy even though there was a gradual depreciation of the Naira during the period.

THEORETICAL FOUNDATION OF EXCANGE RATE POLICY

In looking at the various views held by the prominent schools of thought on the subject of foreign exchange rate determination, we would gradually build up a comprehensive body of thought that may be from different source, which approximate the idea that countries should strive to attain, depending on their peculiarities and problems confronting them. All of the models of exchange rate determination are basically hinged on the familiar national income and the quantity theory of money and its reformations. The classical, Keynesian, neo-Keynesian and

Monetarist arguments, including the structuralist counter arguments, are central to the view expressed by the proponents of the subsisting models of exchange rate determination.

Models of exchange determination are simply the different frameworks built on competing of school of thought under which the exchange rate of a currency can be determined. The models are based on body of economic theories on relationship between the exchange rate of a domestic currency vis-à-vis that of traditional partners and the factor responsible for variations in their equilibrium values. The main models of exchange rate determination are the traditional flow model, the portfolio balance model and monetary model (Obaseki, 1991)

The Traditional flow model relies on equilibrium in the foreign exchange market as the determining factor of the appropriate exchange rate. The intersection between the demand for supply of foreign exchange or the market clearing equilibrium rate is regarded as the pure or market exchange rate. The point of intersection is derived from the so called "Marshallian Scissors" which are the demand and supply schedules.
The traditional flows model does not relegate the importance of money but it concentrate on forces behind the demand and supply schedule of foreign exchange. It posited that the exchange rate or the strength of a nation's currency is influenced by relative price, interest rates and real income.

The portfolio balance model relies heavily on the asset or portfolio market. It holds that the portfolio equilibrium position of wealth holders in each country simultaneously determines the exchange and interest rates. The shift in the allocation of wealth between the domestic money base, domestic public bonds and net foreign bonds denominated in foreign currency influences the equilibrium exchange rate. Movements in domestic interest rates and fiscal operations of government to the extent that they induce movements in net foreign assets holding, influence movement in the equilibrium exchange rate.

Accurate forecasts based on this model is therefore difficult because domestic and foreign assets are not perfect substitutes as their rate of returns differs significantly. Furthermore, while some countries are net foreign debtors, others are net foreign creditors. The most disturbing omission of this model is the treatment of wealth holders in isolation of the environment in which they operate. The environment influences the decision of wealth holders. The wealth that is being distributed between the various assets would have been earned as a result of certain investment decisions and prevailing economic conditions. The model would therefore, be inadequate for explaining the entire variation in the exchange rate off a currency.

The monetary approach to exchange rate determination is the most elegant and perhaps the most complete of all the models of exchange rate. The monetary approach is complete because it did not only emphasize the primary role of money but recognized the role of real sector as a contributory factor in exchange rate determination. The monetary model is based on three major legs or tripod. In the first instance, it asserts that the equilibrium exchange rate depends on the stock equilibrium condition in each country's money market. The monetary equilibrium condition state that the price level adjusts instantaneously to equate the value of nominal money stock to desire or real demand for money. The demand for money itself is a function or real income and nominal interest rates.

The movement in the monetary equilibrium is comparatively analyzed with that of a trading partner. An increase in the money stock would induce the depreciation of the domestic exchange ate vis-à-vis trading partners' currencies while a decrease will lead to the opposite response, all things being equal.

CONCEPT OF DEREGULATION IN NIGERIA

Regulation, in contrast to deregulation, in its broadest sense refers to all of the controls which government imposes on the economy and businesses of all kinds. Although, government all over the world has always reserved the right to control general economic activities, its participatory and regulatory roles were traditionally most felt in the area of public utilities, such as electricity, water, posts and telecommunication. In such enterprises, competition was thought to be wasteful and to prevent the abuse of monopolistic power; their regulation became more or less institutionalized. Over time, government control of economic activities has grown and extended beyond these and now embraces diverse controls on both the domestic and external sectors of the economy. In many cases, regulation has extended beyond mere controls of economic activities to include government intervention or participation in non-traditional economic activities with the ultimate aim of fostering competition and improving economic efficiency. Almost invariably, however, excessive regulation especially in the less-developed countries creates its own problems apart from the fact that it does not always achieve its primary aims. Inevitably, a process of deregulation is embarked upon and its basic aims are to remove all the unnecessary controls which tend to inhibit the economic performance in both the private and public sectors of the economy. The introduction of the Structural Adjustment Programme (SAP) in 1986 was a unique opportunity to Nigerians to review all existing controls on economic activities in support of the restructuring of the economy. In particular, the removal of complex administrative controls and other regulations was to be accompanied with a greater reliance on market forces. (Sanusi, 1989)

FOREIGN CURRENCY POLICY IN NIGERIA

During the Pre-SFEM period, the Central Bank of Nigeria was the sole custodian of Foreign exchange. All receipt of foreign exchange meant for this country were channeled through the CBN and all remittances of foreign exchange were by the CBN on behalf of Authorized Dealers who carried out the instructions of their customers in respect of foreign exchange transactions.

The Exchange Control Act 1962 vested in the power Monetary Authorities the power to approve all the applications for foreign exchange in respect of all import transactions and invisible trade transactions. Thus, while the Federal Ministry of Finance approved applications in respect of certain invisible trade transactions including repatriation of capital, profits and dividends, the CBN approved foreign exchange applications in respect of import transactions and certain invisible transactions. The invisible transactions include educational expenses, conferences, seminar, business travels, basic travel allowances, medical etc.

The determination of the exchange rates was an exclusive preserve of the CBN Pre – SFEM, when exchange rates were solely managed and administered by the bankers' bank. Exchange rates were then determined daily by the CBN in relation to the performance of the U.S. Dollar and Pound Sterling in the world foreign exchange market.

As mentioned earlier in this work, different exchange rate policies have been used in the past depending on the economic situation in the country from time to time and sometimes in response

to the changing exchange rate policies in the world. For example, the country's exchange rate maintained parity with the Pound Sterling until the devaluation of the Pound in 1967. The country before 1971 adopted the Gold Content approach under which the value of the Nigerian Currency was derived from it's Gold content vis-à-vis the Gold content of the Pound Sterling and the US Dollar.

After December, 1971 the value of our currency was pegged against a basket of currencies in a fixed exchange rate regime. The country also adopted an import – weighted basket approach in 1978 when the values of Naira was derived form relative import trade weight of seven basket currencies. In 1984, the country's exchange rate was determined through the value of the Pound Sterling and the US Dollar which serve as two intervention currencies. In 1985, however, the exchange rate was determined through the value of the US Dollar which was then used as a sole currency of intervention.

The under listed factors influence the determination of exchange rate in any economy as stated by Idika (1998):

i. Domestic Rate of Interest Compared with Rate of Interest in Other Countries. A country with a low rate will suffer from capital flight and a fall in exchange value of its domestic currency and vice versa.

ii. Domestic Rate of Inflation Compared with Rate of Inflation in Other Countries. A high rate of inflation has a negative effect on the exchange value of the domestic currency. The reason for this is that foreign investors, and some resident investors, will be scared by excessive cost of production which normally accompanies inflation. Consequently, inflow of foreign exchange will be affected and outflow of foreign exchange will be encouraged.

iii. Balance of Payment (BOP) Position of a Country.
This is an important factor influencing the exchange value of a currency. A favourable balance of payments position will enhance the exchange value of the domestic currency. An unfavorable BOP will weaken the exchange value of the domestic currency.

iv. The Growth in Supply of Money
Excessive growth in the supply of money will exert too much pressure on the foreign exchange market. Consequently, the domestic currency will depreciate when demand is greater than the supply of foreign exchange. Thus, to improve the exchange value of the domestic currency, a disciplined monetary policy should be pursued.
When there is an increase in money supply, for example, through the funding of political parties and non-productive social activities by government, banks lend such funds to their customers who now go to the foreign exchange market to purchase foreign exchange, and when the supply of foreign exchange is fixed, then, the naira will depreciate. The credit limit for banks in 191, for example, was exceeded by the first half of the year. Thus, if you oversupply money in the economy, it will find its way through the banks and finance houses to the foreign exchange market and will depreciate the local currency.

v. Government Policy as Regards Intervention in the Foreign Exchange Market
Under a free rate of exchange regime, if the policy of the government is not to interfere with the operations of the foreign exchange market, the exchange value of the domestic currency will appreciate or depreciate from time to time, according to the dictates of market forces. However, if the government intervenes from time to time, the exchange value of the currency will remain at a reasonable level. The objective in intervening is to maintain the value of the home currency.

vi. Aggregate Income and Expenditure in the Domestic Economy
High expenses will increase the demand for foreign exchange, consequently upon which the domestic currency will depreciate.

vii. Productive Capacity of the Economy
An economy with a high productive capacity may be able to maintain a reasonable exchange value for its currency because output can be increased within a short time in order to boost the level of export and foreign exchange earnings. On the other hand, an economy with a low productive capacity, like Nigeria, will find it difficult maintaining a reasonable exchange value for its currency as output for local consumption will be insufficient, which, in turn, makes output for export a mirage, hence the inability of the economy to earn foreign exchange.
However, for analytical purposes, note that an economy that is operating at full employment level of national income will also find it difficult increasing output and generating additional foreign exchange from export. This is so because full employment level of national income means that all resources are fully engaged. Therefore, to increase output of commodity X will involve withdrawing resources from the production of commodity Y.

viii. Commodity Prices
Countries which are exporters of the world's major commodities like oil, gold, cocoa and rubber, to mention just a few, are susceptible to international price movements in these commodities which in turn affect the exchange value of their domestic currencies. For instance, the impact of oil prices will often have a marked effect on the exchange rate operative in the domestic economy of the oil-exporting country.

ix. Confidence in a Country's Economy
Economic news about the performance of a country's economy has a more immediate effect on rates of exchange. If the news received is positive, for example, increase in reserve levels, the exchange rate appreciated, but if negative as with the news about an adverse balance of payments position the exchange rate consequently depreciates.

x. Political and Social Consideration
Political events within a country, civil war and disobedience, a failure to pay interest on international loans and moratorium on commercial and other payments will have a marked effect on a country's currency in the foreign exchange markets.

TYPES OF EXCHANGE RATE POLICY

The monetary authorities can adopt any of the under listed exchange rate policies:

a. Fixed exchange rate policy
b. Free/floating/flexible exchange rate policy
c. Adjustable pegged exchange rate policy
d. Dirty/managed exchange rate policy
e. Crawling peg exchange rate policy
f.

A. Fixed Exchange Rate Policy

This is an arrangement whereby the exchange rate of a currency vis-à-vis other currency is officially determined. Once the rate is determined by the government, all foreign exchange transactions will be concluded at rate of exchange.

B. Free/Floating/Flexible Rate of Policy

This is an arrangement or exchange rate policy which allows market forces of supply and demand to determine the exchange rate of the domestic currency. The market under a floating exchange rate system will serve as the equilibrating price ensuring that demand does not exceed supply of foreign exchange. Excess supply of foreign exchange under this system will lead to a rise in the exchange value of the domestic currency and vice versa.

C. Adjustable Pegged Exchange Rate Policy

This is the exchange rate policy whereby there is an upper limit and a lower limit within the exchange value of the domestic currency can fluctuate. Under this arrangement, when a nation is facing a fundamental balance of payment disequilibria, massive devaluation of currency is allowed. The main problem with the adjustable pegged system is the need for foreign exchange reserve so as to ensure that the exchange rate does not fluctuate beyond the range allowed.

D. Dirty/Managed Exchange Rate Policy (or Dirty Float)

This is an arrangement whereby the government fixes the rate of exchange but still allows it to depreciate within a reasonable margin. From time to time, government will be managing the exchange rate so as to ensure that a reasonable rate is maintained for the domestic currency.

E. Crawling Peg Exchange Rate Policy

This is an exchange rate which fixes the percentage change in the exchange value of a currency. The currency will only be allowed to depreciate to the extent of the agreed percentage over a long period of time. For example, **two per cent** depreciation in a currency may be allowed over a period of two to three years and the rate of depreciation will not be allowed to reach that two per cent until after two to three years. It is a slow and sluggish adjustment in the rate of exchange.

Like many other countries, the main objective of the exchange rate policy in Nigeria is to have a realistic rate which would remove the existing distortions and disequilibrium in the external sector of the economy as well as ease our persistent balance of payments problems. What has probably contributed to our problems in the external sector of the economy is the overvaluation of our currency. This fact has also made this country to be more import-dependent; and less self-reliant in a non-export driven economy.

In the past, different exchange rate policies have been used depending on the economic situation in the country from time to time and sometimes in response to the changing exchange rate policies in the World. These policies included parity with the pound Sterling, the gold content approach, the Dollar peg, pegging against a basket of currencies, in the import-weight basket

approach and the crawling peg, all of which were adopted under a fixed exchange rate regime. However, under the present deregulated economy, Nigeria has adopted a floating exchange rate policy with the inception of the Second-Tier Foreign Exchange Market (SFEM) in September, 1986, Accordingly, the exchange rate of the Naira vis-à-vis other foreign currencies has from that time been market determined. (Idika, 1998)

Problems with the Nigerian Exchange Rate System

- A critical requirement for a freely floating exchange rate regime is the absence of any form of economic rigidity. The Nigerian economy is characterized by structural rigidities and bottlenecks. Most of our exports and imports are characterized by inelasticity either on the demand or supply side or both.
- Restraint on the free flow of goods and services by our trading partners. The guidelines of the CBN on the purchase of foreign currency are often cumbersome, causing some frustrated potential foreign exchange users to patronize the parallel market.

There is always a gap between supply and demand for foreign exchange. The Nigerian economy is import dependent. Thus, pressure on foreign exchange demand will inevitably create the alternative market, hence different rates. Non-oil export is under-reported and proceeds are hardly repatriated into the country, thus compounding the supply rigidity.

ADJUSTMENTS AND INDUSTRIAL PERFORMANCE IN NIGERIA

Prior to Nigeria's independence in 1960, the predominance economic activities were agriculture production and marketing of imported goods. Early manufacturing activities predating independence were limited to semi-processing of primary agricultural products as adjuncts to the trading activities of foreign companies. The agro-based manufacturing units that were established include vegetables oil extraction and refining plants, starch making, tobacco processing, pottery, raffia crafts, mat making, wood carving and saw milling. They were followed by textiles, breweries, cement, rubber processing, plastic products, brick making and pre-stressed concrete product.

- ## Performance

The factor that influenced the structural changes and performance of the manufacturing sub-sector since independence includes government intervention, low technological development, inward-looking strategy and protectionism. As in other developing economies, the main objectives set by the industrial planners in Nigeria include: the desire to achieve increase in the share of manufacturing contribution to GDP, replacement of imports with locally produced goods, innovativeness, industrial dispersal and employment generation. The performance of the manufacturing sub-sector is therefore, assessed employing criteria such as its share (value-added) in GDP, manufacturing production index, which reflects changes in the level of aggregate output relative to a specific based year period; and plant capacity utilization rates.

The pre-Structural Adjustment Programme era, spanning the 1960s to the mid-1980s, witnessed the adoption of various policy measures and strategies designed to promote industrial growth. At the outset, Nigeria, as an inward looking economy adopted the import substitution strategy, which encouraged manufacturing units, but with heavy dependence on imported inputs.

The high import dependency was more pronounced in the heavy capital-intensive industrial sub-groups. This induced steady output growth averaging 11 percent per annum in the manufacturing sub-sector in the 1970s, while its share in GDP also increased from 5.4 percent in 1977/78 (1984 constant prices) to a peak of 13 percent in 1982. (CBN Research Dept. 2000)

- **CONTRIBUTION TO THE GROSS DOMESTIC PRODUCT AND EXPORTS**

The share of GDP of the Industrial sector is not significantly different from that before 1986, though industrial exports showed a slight improvement with the introduction of SAP. As reported in Akinlo's study (1995) except for electronic and electrical industries, all other industries intensified efforts towards export. This increased export effort could have been enhanced by the elimination of quantitative restrictions and the rationalization of tariffs.

However, the ratio of exports to output sales still remained relatively low, even with the adjustment programme. Exports as a ratio of total sales were low for most industrial groups, except for textiles and clothing, rubber, leather and shoes, soap and candy products. The shares of food and beverages exports as a percentage of sales were consistently below 2.5 per cent between 1987 and 1991. The same applies to paper and paper products, chemicals and pharmaceuticals, electronics and electrical goods as well as metals. These findings simply point to the need to intensify efforts to promote exports.

- THE PROFITABILITY OF THE INDUSTRIAL/MANUFACTURING SECTOR

In absolute terms, almost all categories of industries experienced increased profit. For example, from a sample of 360 manufacturing industries in Nigeria, food and beverages had its overall total profit level increased from **N**40.3 million in 1983 to **N**85.2 million in 1987. This figure moved up to **N**145.3 million in 1990 and **N**172.4 million in 1991. The same pattern was observed from other subgroups such as paper and paper products, leather products and shoes as well as textile and clothing. However, when the massive depreciation of the Naira during the adjustment is taken into consideration, the actual profit level for all categories of industry fell drastically. When compared with 1985 adjusted values, all categories of industry showed a significant decrease. In general, it was found that negative relationships existed between the profit levels of the manufacturing industries and the movement of the exchange rate. The higher the rate of exchange rate depreciation, the lower the rate of profit, and vice versa. This tends to demonstrate that the exchange rate constitutes a major component of the manufacturing industries' production process.

- CONTRAINTS TO MANUFACTURING PRODUCTION IN NIGERIA

Many factors determine the production of manufacturing products, such as domestic credit, foreign exchange, raw materials, labour, machinery and equipment among others. For most enterprises in the sub-sector, by far the most binding constraints to production is lack of finance. Most financial institutions discriminate against manufacturing industries in their lending policy. This was due to the long-term type of loans required by most manufacturing industries. Financial institutions prefer giving out credits for quick yielding services projects. Given this constraint, most firms had to rely on other sources of finance.

The situation was not better during the period of reforms: though firms had better access to credit, they could not afford it because of the high lending rate resulting from the liberalization of interest rates. Those that managed to obtain credit at prevailing rates incurred high production costs, which they could not pass on fully to consumers in the form of higher prices because of the weak demand and an inflow of competing imports. Most firms experienced a financial squeeze. While evidence of financial constraints implies the existence of imperfections in financial markets, which warrant attention by the government, there are, however, some enterprises in the economy to which it would be imprudent for any financial intermediary to lend.

Moreover, given the raw materials import dependent nature of most manufacturing industries in Nigeria, the massive depreciation of the Naira seriously affected the cost of imported raw materials, which were parts of the cost of production. Foreign exchange is required to purchase imported raw materials to finance production. The decrease in foreign exchange earnings resulted from export sales. The reduced price of oil on the international markets and low export sales seriously constrained the accessibility of firms to foreign exchange and thus their ability to purchase raw materials. This directly affected the levels of production, capacity utilization and of employment in the sub-sector.

Another important constraint is the poor state of international facilities in the country. Many infrastructural facilities established at the time of the oil boom in the 1970s to facilitate manufacturing activities had deteriorated even before the introduction of the adjustment programme. Most of them only provided epileptic services to the entrepreneurs, roads, communication, water and electricity supplies were inadequate. The introduction of the reforms involving the privatization of some of these agencies has only led to the increased cost of these services, affecting the production costs of the manufacturing industries significantly and thus the unit price of goods.

Other constraints include; the ability to procure spare parts, machinery and equipment and also regulatory constraints which include; bureaucratic procedures, tax regulations and labour regulations.

According to findings of Ojo, (1989) in his study in Germany, it was discovered that the German financial system was designed to tackle the problems they face even after the war that rendered their industries useless and left the nation in shambles. In the face of rebuilding the economy therefore, financial system was therefore designed in a way to rebuild their economic system.

According to Alexander (1965), “the German banks stick to the industry from cradle to grave”. At the early stage, the colonialist designed our financial system, implemented policies and controls which later crumbled because we were not the originator and that was the main reason why several controls and administrative controls have failed and brought about no result to show for it. The financial system of Nigeria has been bureaucratically designed to be totally profit making and not nation building. Therefore, to revitalize the industrial/manufacturing sub-sector, these constraints must be effectively tackled.

3.0 Research Methodology

Introduction

This paper deals with the effect of exchange rate deregulation on industrial produce/manufacturing output in the Nigerian economy. This Section tries to capture the factors that affect the productivity of the manufacturing sector, how it affects it and to what extent. This study also uses the econometric approach in estimating the effect and to be specific it uses the co-integration and error correction mechanism.

Model Specification

The main aim of this paper is to analyze the impact of Deregulation of Foreign Exchange on industrial output in Nigeria. In this paper, the variables needed to examine the effect of exchange deregulation on industrial output are industrial produce, exchange rates, inflation rates, labour force per time, capital stock and political regulations/instability.

This paper will be guided by classical production theory;
$Q = F(K, L)$ …… (1)

Let Q = output,

K = capital,

L = labour.

Adapting equation 1,

$$IQ_t = \alpha_0 + \alpha_1 L + \alpha_2 K + \alpha_3 EXR + \alpha_4 INF + \alpha_5 DUM + Ut$$

Where α_0 is the intercept

$\alpha_1, \alpha_2, \alpha_3, \alpha_4, \& \alpha_5$ are the various slope coefficients

Ut is the error term

After linearising equation (1), we then introduce one dummy variable to capture the industrial production output in intercept and slopes respectively. Equation one then becomes the following:

$$LOG\ IQ_t = \alpha_0 + LOG\alpha_1 L + LOG\alpha_2 K + LOG\alpha_3 EXR + \alpha_4 INF + \alpha_5 DUM + Ut$$

$$IQ = F(L, K, EXR, INF, DUM)$$

Where:

IQ = Industrial Output

L = Labour

K = Capital

EXR = Exchange Rate.

INF = Inflation Rate

PI = Political Instability (Dummy Variable).

A PRIORI EXPECTATION

Labour

Labour is expected to have a positive relationship with industrial output. This means that increase in Labour will yield high productivity in the economy.

$$\delta LOG\ (IQ)/\delta LOG\ (L) > 0$$

Capital

This variable is expected to have a Positive relationship with manufacturing output. This is because increase in the total capital of any investment will boost the production of the business in large scale. A good industrialist will always seek avenue to increase his investment capital to boost production. This has a great implication on the GDP as well as the economy.

$$\delta LOG\ (IQ)/\delta LOG\ (K) > 0$$

Inflation Rate

The variable, inflation rate is expected to have a negative relationship with industrial produce. This is because if prices of goods and services increase, demand of industrial produce will reduce and industries will be left with the option of adjusting to the demand of the people in the long run.

$$\delta LOG\ (IQ)/\delta LOG\ (INF) < 0$$

Exchange Rate

This variable is expected to have also a positive relationship with agricultural output. Reason is that the more liberalized the economy or trade the better for agricultural output.

$$\delta LOG\ (IQ)/\delta LOG\ (EXR) > 0$$

Dummy Variable

The dummy variable is actually related to the political factor that affects negatively industrial productivity through various unstable policies and unhealthy bureaucracies in government. This variable is "dummy" because it cannot be actually valued numerically.

$$\delta LOG\ (IQ)/DUM < 0$$

On A priori

$\alpha_1 > 0$, $\alpha_2 > 0$, $\alpha_3 > 0$, $\alpha_4 < 0$, $\alpha_5 < 0$

CRITERIA FOR DECISION MAKING

These are the test that will be performed in order to verify the theoretical and statistical validity of the parameter estimates derived from the regression result. For this cause, the following econometrics and statistical techniques shall be adopted.

1. Expected signs and magnitude of the independent variables: it helps to know whether our parameter estimates conforms to theory.
2. Goodness on fit test, using R^2 and adjusted R^2: it measures the percentage of systematic variations in the dependent variable that can be explained to changes in the independent variables.
3. T- test: it measures the individual significance of the explanatory variables
4. F-statistics: it measures the overall significance of the model
5. The Durbin Waston statistic: it helps as a test for the presence of serial correlation
6. The standard error of estimates: it is used to measure the standard error of the stochastic term.

Co-efficient of determination (R^2) and Adjusted R^2

This shows the percentage of the total variation of the dependent variable that can be explained by the independent variable(s). The higher the R^2, the greater the percentage of the variation of the dependent variable that is explained by variations in the explanatory variables and vise versa. Also, the adjusted R^2 which measures the same thing as the R^2 but adjusted for the changes in degree of freedom. This is because it gives a better measure of goodness of fit having been adjusted for the loss in degree of freedom as more explanatory variables are added.

The sign expectation

This refers to what theory says about a particular economic relation. The sign either positive or negative and size of the parameter estimate is usually captured by it. Parameters in the model are expected to have sign and size that conform to economic theory, if they do, they are accepted. On the other hand, if they do not conform to a priori specification we either reject them and we therefore have a reason to believe that the principles of economic theory do not hold. (Koutsoyannis, 1977)

The F-statistics

This is used to test the overall significance of a model. The regression equation is adequate if the F-statistic gives a value higher than the appropriate table F-statistic, but if the calculated F-statistic is less than the appropriate table figure (at a chosen level of significance) found from the F-table with k-1 and n-k degree of freedom, then the regression will be significant.

Student T-test

The student T-test will be used to determine the statistical significance of the parameter estimates. The T-statistics will be given in parenthesis under the associated parameter estimates. A two-tailed test will also be carried out at the 1%, 5% and 10% level of significance. We then compare the computed t-statistic with the given tabulated t-statistics to establish significance.
When the calculated t-value is less than the tabulated t-value, then the parameter is not statistically significant and vice-versa.

Durbin-Watson Test

This is used to test for the presence of auto correlation in the variable. However, this test is appropriate only for the first order auto regressive scheme. The decision rule for the DW statistics is if there is no auto correlation, then d= 2. Likewise if d= 0, we have a perfect auto correlation. However, if $0< d > 2$, then there is some degree of positive auto correlation (which is stronger if d is closer to zero). Also, if d = 4 there exist perfect negative auto correlation. And if d lies between 2 and 4, i.e. $2 < d < 4$, there is some degree of negative auto correlation.

Standard Error

The standard Error of estimates will also be used to measure the standard error of the stochastic term. If the standard error of the estimates is small relative to the mean values of the dependent variable, the model equation is preferred and vice versa.

DATA SOURCE

In this paper, secondary sources of data will be use. Data from Central Bank of Nigeria Statistical Bulletin will be adopted to establish this evaluation exercise.
For industrial/manufacturing output; the data shall be sourced from the CBN statistical bulletin of 2004

4.0 DATA PRESENTATION ANALYSIS AND INTERPRETATION

Introduction

Haven specified the model for this paper in the preceding section, this section focuses on presentation, estimation, and analysis of the data as well as the interpretation of the results obtained. To this effect, the data used is presented in section 4.1, while section 4.2 focuses on the analysis of data as well as the results. In section 4.3 the hypotheses earlier formulated in section one will be subjected to test and results will be discussed.

PRESENTATION OF DATA

Table 4.1 Data for the regression analysis

Year	MQ	EXR	CPI	K (in million)	L	DUM
1970	24.1	0.7143	10.8	49,942.00	N/A	0
1971	27.6	0.6955	12.5	47,710.00	N/A	0
1972	29.7	0.6579	12.9	74,372.00	N/A	0
1973	36.7	0.6579	13.6	72,330.00	N/A	0
1974	35.5	0.6299	15.4	94,380.00	N/A	0
1975	43.9	0.6159	20.7	105,365.00	N/A	0
1976	54.1	0.6265	25.6	115,688.00	N/A	0
1977	57.5	0.6466	29.6	144,052.00	N/A	0
1978	65.8	0.606	34.5	175,072.00	N/A	0
1979	97.3	0.5957	38.5	191,614.00	N/A	0
1980	102.4	0.5464	42.3	416,380.00	N/A	0
1981	117.3	0.61	51.2	420,180.00	N/A	0
1982	128.6	0.6729	55.1	421,829.00	47,557	0
1983	94.8	0.7241	67.9	509,395.00	7,394	0
1984	83.4	0.7649	94.8	520,969.00	3,891	0
1985	100	0.8938	100	582,488.00	2,284	0
1986	78.2	2.0206	105.4	658,387.00	2,526	1
1987	130.8	4.0179	116.1	695,746.00	5,163	1
1988	135.2	4.5367	181.2	798,599.00	2,787	1
1989	154.3	7.3916	272.7	1,188,016.00	4,152	1
1990	162.9	8.0378	293.2	1,566,705.00	2,903	1
1991	178.1	9.9095	330.9	1,987,324.00	3,088	1
1992	182.7	17.2984	478.9	2,121,648.00	995	1
1993	145.5	22.0511	751.9	3,012,511.00	1,330	1
1994	144.2	21.8861	1180.7	3,985,010.00	867	1
1995	136.3	21.8861	2040.4	25,366,894.00	1,168	1
1996	138.7	21.8861	2638.1	39,076,006.00	2,111	1
1997	138.5	21.8861	2863.3	39,625,438.00	2,136	1
1998	133.1	21.8861	3149.2	39,738,023.00	1,367	1
1999	137.7	92.6934	3357.6	39,847,508.00	1,686	1
2000	138.2	102.1052	3590.5	39,847,508.00	1,033	1
2001	137.7	111.9433	4268	39,849,008.00	1,947	1
2002	146.3	120.9702	4897	47,818,810.00	1,491	1
2003	147.1	129.3565	5493.3	76,510,096.00	2,662	1

2004	145.7	133.5004	6318.3	91,812,115.20	12,623	1

NB:
MQ (Manufacturing output)
K (Capital stock involving the combination of ordinary stock and preference stock of capital of Nigerian industries)
L (This is the number of employment declared)
DUM (this is political instability and deregulation policy from 1986 till date)
EXR (exchange rate in Dollars)
CPI (inflation over the years in index form)
N/A (Not Available)
Source: Central Bank of Nigeria Statistical Bulletin (2004)

DATA ANALYSIS AND RESULTS

In order to ascertain the effect of deregulation of exchange policies on manufacturers produce, the above models specified in section three was estimated using the Ordinary Least Square (OLS) estimation approach. The result is shown in the table below.

Table 4.2

SUMMARY OF ORDINARY LEAST SQUARE REGRESSION RESULT

Dependent Variable: LOG (IQ)

Variables	EQ1	EQ2
C (intercept)	0.0033	0.028
LOG(K)	0.4846	0.4340
LOG(L)	0.0185	0.0142
LOG(EXR -1)	0.0001	0.0000
CPI	0.0020	0.0004
DUM	0.7012	_
AR(1)	0.5229	0.6014
TESTS		
R^2	0.788916	0.786975
R^2 Adjusted	0.704483	0.720405
S.E of Regression	0.118369	0.115136
F- Statistics	9.343633	11.82172
Prob.(F-Statistics)	0.000230	0.000065
DW	2.050850	2.030130

From the result shown in the table above, it can be seen that the five independent variables together explained about 79 percent of the systematic variation of the dependent variable during the period being studied. Thus indicating the regression has a reasonable fit. The result also shows the Durbin Watson statistics to be very perfect (i.e. 2.050850) and also revealed that the regression is free from the problem of autocorrelation.

The result shows IQ (Industrial Output) to be dependent on Capital, Labour, Exchange rate, and Inflation. This is explained in the third section of this work. Considering the individual results of the variables, therefore, we see that K reveals a positive relationship between capital and Industrial products, just as specified in the a priori. However it is neither significant at 5% nor at 10% level of significance. This means that a percentage increase in capital is not significant to the increase in industrial produce which is unlike the theory of production. This can be explained by the lack of capital faced by industrialist, investor and mismanagement of funds by Director, and lack of records in Nigerian economy.
The variable L reveals that there is a positive relationship between labour and manufacturing/industrial output. More so, it is statistically significant for both L in the current period and in the 2^{nd} lagged period. This conforms to a prior specification. In other words therefore, a percentage increase in labour will yield to unit increase in industrial output.

CPI depicts a negative correlation and positive correlation for the EXR. Inflation result from the regression conforms to the a priori specification and it has been found to be statistically significant in the first and second estimate at 5% level of significance. The negative correlation can be explained by the impact inflation plays on production of goods and services. When inflation is high, productivity reduces at the short run. This continually really affects the production of goods and services of Manufacturers in the system. It simply says that increase in the price of goods and services will lead to reduction in productivity of industrialists. More so, people tend to import factors of production from oversea at a cheaper price and yet sell high to the local market. All these explain the negativism in the sign of CPI (Inflation) in the case of Nigeria contrary to stated theory.

DUMMY Variable gave a positive correlation which conforms to the a priori specification in section three. This means that deregulation is a factor that provokes increase in industrial output. Nevertheless, dummy variable proved insignificant in the first and the second lag of the estimation.

In the first computed result R^2 derived was over 78 percent and as well as the Durbin Watson Statistics calculated proved accurate as expected (2.050850). We can then conclude by saying that the major determinant of manufacturing output in the Nigerian economy is exchange rate, labour, and inflation as the result revealed in the first estimate. Capital tested to be negatively correlated unlike the specification of the a priori, it can be concluded that capital is not properly utilized to bring about maximum utility of the Industries capacity. It should be noted that an increase in capital is suppose to provoke an increase in manufacturing output, but in the case above it is bringing about less or insignificant productivity.

TESTING OF HYPOTHESIS

Based on the list of hypothesis in section one against the findings of this result, it has been observed that we can accept the null hypothesis which states that "the policies on deregulation of exchange rate have had a positive effect on the industrial products of the Nigerian economy". This is obvious due to the fact that instead of the value of the dollar to the Naira to be appreciating it has been depreciating over the years. For the second hypotheses, we accept the alternative hypothesis which states that "the structural adjustment program has not proved favorable to the Nigerian economy, and that the structural adjustment programme has done more harm than good to the Nigerian economy. For the third hypotheses, we accept the alternative hypothesis, which says that the economy was not better off during the era of heavy regulations.

POLICY IMPLICATION OF FINDINGS

The above finding reveals that the extent to which labour, capital stock, inflation and exchange rate has stimulated the manufacturing output responsiveness as observed from the co-efficient of the manufacturing output model. The message is that the manufacturing output has been highly responsive to labour, inflation, exchange rates and capital stocks both in the long run and short runs. Additionally, the findings also reveals the extent to which deregulation policy has an insignificant effect on the manufacturing output as observed from the co-efficient of the manufacturing output model. This means that the manufacturing output has been irresponsive to the policy of deregulation of exchange rate and political instability both in the short run and long run.

Policy makers must address pertinent issues guiding the conduct of the Structural Adjustment Program (SAP) exchange rate policy. The result of using floating or fixed exchange rate must be addressed since the exchange rate is a traded commodity in the international market. The desirable exchange rate policy required to stimulate the needed adjustment in the economy, and maintain macroeconomic stability would have to be determined.

The present dispensation within the dual exchange rate system may be ineffective unless the official exchange rate market becomes responsive. In the interim, expected and actual earnings from Autonomous Foreign Exchange Market (AFEM) intervention should be properly accounted for, and an equitable distribution of the earnings should be made to all tiers of government. The official exchange rate could be allowed to gradually wind down to affect a desirable value and eventually merge with the Autonomous Foreign Exchange Market (AFEM) rate. Although it is doubtful if the unification of the exchange rate system could lead the economy to a desired path of economic growth, a unified exchange rate system could help to pave the way for the attainment of other complimentary policy objectives. There is a need for the government to ensure the synergy of its foreign exchange rate policy with the desire to revamp the productive sector. The structure of the exchange rate should reflect the objectives of industrial and economic development. In addition, the disbursement of foreign exchange should be directed towards policy importation through government intervention. Overall, the conduct of the exchange rate policy should compliment other domestic economic policies.

5.0 SUMMARY AND CONCLUSION

The effect of exchange rate deregulation was express as a function of labour, capital stock, inflation rate, exchange rate and political instability/deregulation policy. The paper started by laying a background for the work in which various literatures related to the topic were being

reviewed and analyzed. Section 1 dwells on the statement of the problem, objectives, statement of hypotheses, significance of the study, research questions and scope of the study.

Section 2 is mainly on the reviews of similar literatures relating to foreign exchange policies per time, the trend, management and other matters relating to foreign exchange. Setion 3 focus on the research methodology while Section 4 is the presentation, analysis and interpretation of the regression result. Chapter five is the final and the concluding part of the subject matter which simply try to give conclusion and recommendation on the entire work, as well as further readings for other researchers.

EMPIRICAL FINDINGS

The dependent variable, as analyzed in chapter three, is IQ (Industrial Produce) and the estimation was from 1970 to 2004. The co-efficient of determination, that is, the R^2 reveals that over 78% of the total changes in manufacturing/industrial output are explained by the explanatory variables.

The F-statistics of 9.343633 is highly significant at the 10% level. This show that the entire slope co-efficient of the variables simultaneously explains variables in the manufacturing output. The D-W statistics of 2.050850 reveals that there is no autocorrelation in the model. This is because; the closer the D-W is to 2 the better the result. Judging by the soundness of the co-efficient of determination and the F-statistics, we can therefore proceed to the interpretation of the model.

The error correction factor has the correct sign and it is also highly statistically significant at the 5% level. This shows that there is a dynamic shift from the long run to the short run. The speed of adjustment is very high, that is, it will take a very short period of time for Industrial/manufacturing output to adjust to changes in the economy.

The variable L reveals that there is a positive relationship between labour and manufacturing output. More so, they are statistically significant for both L in the current period and in the 2^{nd} lagged period. This conforms to a priori specification.

The result also shows that there is a positive relationship between K and manufacturing output in the current period, 2^{nd} lagged period. They have also been found to be statistically insignificant at the 5%, 10% and 5% level respectively. This does not conform to a priori specification. Reason for this being that capital stocks are not managed properly in industries and allocation is very poor.

INFL depicts a positive correlation as well as the 2^{nd} lagged value of EXR. They carry the correct signs, they have been found to be statistically significant. Contrary to the a priori specification, inflation is suppose to be negatively correlated to industrial produce, but probably because of techniques usually adopted by industrialist i.e. investors may not acquire factors of production oversea during inflation due to high cost during the time of inflation whose cost is lower than what is attainable in the local economy.

The dummy variable reveals a positive relationship between manufacturing output and the political instability/deregulation policy of the Nigerian economy. However, it is also statistically

insignificant.

We can then conclude by saying that the major determinant of manufacturing output in the Nigerian economy is labour, capital and exchange rates. An increase in labour and capital would provoke an increase in manufacturing output.

RECOMMENDATIONS

In other to bring about an improvement in the situation of the economy with growth in the economy, a major factor or determinant of the level and growth of the economy is industrial breakthrough. This is clearly confirmed by the LDCs high importation of industrial goods which translates to foreign trade income to industrious nations. This has been the ability of rich nations to sustain high rates of economic growth without inflation. It follows that under present international economic relationships; LDC export performance is directly related to the growth and price stability of developed-country economies. The lessons of the past 40yrs have revealed to developing nations that no economic models could; there is need to make every effort to reduce their individual and joint economic vulnerabilities. One method of achieving this goal is to pursue policies of greater collective self-reliance within the context of mutual economic cooperation.

Though not denying their interdependence with developed nations and their need for growing export markets, many developing countries now realize that in the absence of major reforms of the international economic order, a concerted effort at reducing their current economic dependence and vulnerability is essential to any successful development strategy.

Official foreign exchange rates are not necessarily set at or near the economic equilibrium price for foreign exchange. In situations of excess demand, LDC central banks have three basic policy options to maintain the official rate of exchange;

- They can attempt to accommodate the excess demand by running down their reserves of foreign exchange or by borrowing additional foreign exchange abroad and thereby incurring further debt (as many African countries did in the 1980s).
- They can attempt to curtail the excess demand for foreign exchange by pursuing commercial policies and tax measures designed to lessen the demand for imports (like, tariffs, physical quotas, licensing).
- They can regulate and interfere in the foreign exchange market by rationing the limited supply of available foreign exchange to "preferred" customers. Such rationing is more commonly known as exchange control. The policy has been prevalent through out the developing countries, although it is much less common today.

In my opinion, it is better to curtail the excess demand for foreign exchange. Other recommendations for this research include, improving the labour force through training and education, the Nigerian economy should encourage foreign investment and importation of technology which would help increase the technological know-how of the Nigerian labour force.

Finally, the policy makers should indulge in policies that would help counteract the effects of the exchange rate policy that has been shown to cause the insignificance in it effect to the manufacturing output.

SUGGESTION FOR FURTHER STUDIES

The adoption of Ordinary Least square (OLS) method used in showing the relationship between effects of deregulation of exchange rate on industrial produce were analyzed through a model

interrelating manufacturing output and labour, capital stock, inflation, exchange rate and political instability/deregulation policy.

In the case of further studies extensive work can be done on capital utilization in the manufacturing sector as an agent for nation building. The study will need to focus on determining the most efficient and effective way of utilizing resources available for businesses to improve maximum productivity. (Case study being manufacturing companies in Nigeria)

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